

Listing of Claims:

Claims 1 - 12 (Canceled).

13. (New) A printing apparatus for printing an image using a consumable detachably attached to the printing apparatus, wherein the consumable is adapted to output a response code obtained by encoding an identification code with a set logic and
5 wherein a first logic is set in the consumable as the set logic when the consumable is unused, said printing apparatus comprising:

 a generating section which generates the identification code;

10 an output port which outputs the identification code to the consumable;

 an input port through which the response code from the consumable is input;

15 an encoding section which encodes the identification code using the first logic to obtain a first normal code;

 a collating section which collates the first normal code with the response code input through the input port;

20 a change section which changes the set logic in the consumable to a second logic, which is different from the first logic and which is determined in accordance with a predetermined

rule, when the response code coincides with the first normal code;

25 a storage section which stores a plurality of said second logics and a plurality of count values which are associated with the second logics, respectively;

a storage control section which controls the storage section;

30 an updating section which updates, in accordance with use of the consumable, the count value stored in the storage section in association with the second logic corresponding to the consumable;

_____a determining section which determines whether each count value is equal to or less than a limit value; and

35 an identifying section which identifies whether the consumable is usable;

_____wherein if the response code coincides with the first normal code, the change section changes the set logic to the second logic determined in accordance with a predetermined rule, and the storage control section causes the storage section to store the
40 determined second logic and an initial value as a count value, and the identifying section identifies the consumable as usable;

wherein if the response code does not coincide with the first normal code, the encoding section encodes the

identification code using each of the second logics stored in the
storage section to obtain second normal codes, and the collating
section collates the second normal codes with the response code;

wherein if the response code coincides with any one of the
second normal codes, the determining section determines whether
the count value associated with the second logic used by the
encoding section to obtain the coinciding second normal code is
equal to or less than the limit value, and the identifying
section identifies the consumable as usable if the count value is
equal to or less than the limit value, and identifies the
consumable as unusable if the count value is larger than the
limit value;

wherein if the response code does not coincide with the
first normal code and does not coincide with any said second
normal code, the identifying section identifies the consumable as
unusable.

14. (New) The printing apparatus according to claim 13,
further comprising a parameter setting section which sets a
parameter commensurate with the count value corresponding to the
consumable, when the count value is equal to or less than the
limit value.

15. (New) A method for controlling a printing apparatus for printing an image using a consumable detachably attached to the printing apparatus, wherein the consumable is adapted to output a response code obtained by encoding an identification code with a set logic and wherein a first logic is set in the consumable as the set logic when the consumable is unused, said method comprising:

generating the identification code;

outputting the identification code to the consumable;

receiving the response code from the consumable;

encoding the identification code using the first logic to obtain a first normal code;

collating the first normal code with the received response code;

if the response code coincides with the first normal code:

changing the set logic in the consumable to a second logic, which is different from the first logic and which is determined in accordance with a predetermined rule;

storing the determined second logic in a storage section with stores a plurality of said second logics, each in association with a corresponding count value, such that the determined second logic is stored in association with a count value that is an initial value;

identifying the consumable as usable; and

25 updating, in accordance with use of the consumable, the
count value stored in the storage section in association with the
determined second logic corresponding to the consumable; and
if the response code does not coincide with the first normal
code:

30 encoding the identification code using one of the
plurality of second logics stored in the storage section to
obtain a second normal codes, and collating the second normal
code with the response code;

35 repeating said encoding using a different one of the
stored second logics until one of: (i) one of the second codes
coincides with the response code, and (ii) it is determined that
none of the second codes coincide with the response code;

40 when one of the second codes coincides with the
response code, determining whether the count value associated
with said one of the second codes is equal to or less than a
limit value, and identifying the consumable as (i) usable if the
count value is equal to or less than the limit value, and (ii)
unusable if the count value is larger than the limit value; and

45 when none of the second codes coincide with the
response code, determining the consumable as unusable.

16. (New) The method according to claim 15, further comprising setting a parameter commensurate with the count value corresponding to the consumable, when the count value is equal to or smaller than the limit value.